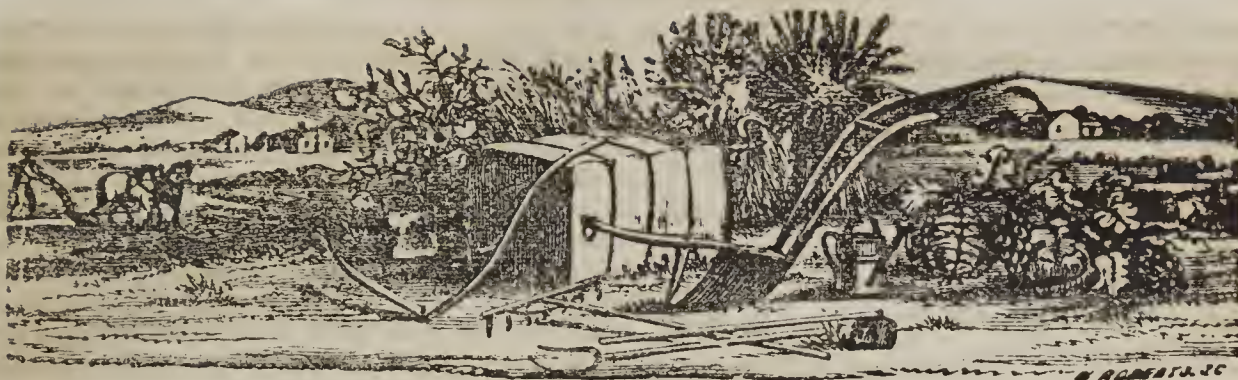


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THE FARMER AND PLANTER.

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For the Farmer and Planter.

Book-Farming.

THE ORCHARD.—Almost everybody is fond of some kind of well matured fruit; and, no doubt, it is designed by the author of nature, as the different kinds are so varied in flavor, to form an agreeable part of man's nourishment, and, if properly used, to promote the health and happiness of all. It is so easily raised that we can have it almost without trouble or expense; and as it is so easily raised and so universally liked, no one should think of depending on his neighbor for it—but plant, graft and cultivate it on every farm. Every farmer should plant an orchard, and then every farmer would find an orchard, wherever he went to, ready for use. Many men are much to blame for living years

on the same place, wearing out the soil raising grain, without planting or setting out a fruit tree; and some who have come under the writer's knowledge, even cutting down what sprung spontaneously from the seeds of some neighbor's fruit. Others are to blame for only planting or setting out a few trees, without any reference to their quality, or the soil they are placed in, making that the end of all further notice. It is not wonderful to hear them complaining afterwards of their ill success in cultivating an orchard, and then yield up the enterprise as not worth attending to.

It is a treat, not only to the appetite, but also to the eyes, in fruit time, to enter an orchard presenting every variety of fruit trees, which may be raised in the same climate. The eye never tires in looking on, nor pleasurable curiosity in enquiry. The pleasure increases to sublimity, and a paradise of endless duration is brought before the imagination. There is pleasure in every recurrence of the mind to such a rich scene; and it does seem wonderful that every man, woman and child are not from hence stirred up to plant orchards, and enjoy the fruit. But our wonder increases as in travelling, we are frequently passing many farms in fruit time, with not a single fruit tree bending under its precious and delicious burden, to greet the eye or cheer the appetite.

We hope, however, that the spell will soon be broken, and that all our farms will present the general varieties of fruit trees that our climate and soil will produce. Setting out trees and grafting makes a very agreeable past-time; and surely past-time could not be better employed than in preparing something for our fu-

ture and lasting pleasure, and the happiness of the friends who may like to visit us.

SET OUT FRUIT TREES.—Lay off a lot of ground for an orchard, then, by a little skill in selecting fruit trees, putting them in the soil, pruning and cultivating, you may, in a short time, have a splendid orchard, and no more be under the humiliation of depending on your neighbors for good fruit.

I see no reason why we may not have apples, peaches, pears, figs, cherries, "sarveses," plums, mulberries and grapes to the heart's content. There is only a little skill needed in making the proper selections, and a little care in the cultivation, to have all the varieties of the best fruits the temperate zone will produce

W. L.

(TO BE CONTINUED.)

From the Herald of Truth.

Mineralogical.

MR. EDITOR:—Will you do me the favor to insert the following sketch on mining, which I now write for the benefit of the citizens of Henderson county, and the adjoining counties? It may be of some benefit to them in their mining operations. If so, I shall be glad.

It is certain, that the bosom of this mountain country contains valuable ores; and it is the duty of each land owner to search for the valuable minerals which may have been deposited by the All-wise Creator for the benefit of the human family. It is their duty, I say, to themselves, their country, and their posterity.

I will, therefore, commence my sketch with a precaution to those who are engaged in mining operations. An acquaintance with the general results, as collected and classified by geologists, must be our first guide in the investigation of minerals or mines. This enables the observer to judge whether any particular district should, from the nature and arrangement of its rocks, be susceptible of including within its bosom beds of workable ores. It indicates also, to a certain degree, what substances may probably be met with in a given series of rocks; and what localities these substances will be likely to affect. For a want of a knowledge of these facts, many persons have gone blindly into examinations for minerals, equally absurd and ruinous.

Formerly, indications of mines were taken from very unimportant circumstances. From thermal waters, the heat of which was, by degrees, as was supposed, referred to the decomposition of pyrites; from mineral waters, whose scours are, however, often from a far distant source; from vapors incumbent on particular mountain groups; from the melting of snows, being more rapid in one mineral district than another; from the different species of forest trees; and from the greater or less vegetation, &c. In general, all such indications are equally fallacious with the divining rod and compass made of a lump of pyrites, suspended by a thread. Geological observations have substituted more rational characteristics of metallic deposits:

some of which may be called negative, and others positive. The negative indications are derived from that peculiar geological constitution, which, from experience or general principles, excludes certain metallic matters; for example, Granite, and, in the general, every primitive or plutonic formation, forbids the hope of finding within them combustible fossils—Pit Coal,—unless it be beds of anthracite. There also it would be vain to seek for valuable minerals. It is very seldom that Granite rocks include silver; or Limestone, ores of tin. Volcanic territories never contain metallic mines which are worth their working; nor do extensive veins run into secondary and alluvial formations. The richest ores of iron do not occur in secondary strata; nor do the ores of this metal, peculiar to their localities, exist among primary rocks. Among positive indications, some are proximate, and others remote. The proximate are an efflorescence—so to speak—of the subjacent metallic masses, magnetic attractions for iron ores; bituminous stone, or inflammable gas from pit coal; the frequent occurrence of fragments of particular ores, &c. The remote indications, consists in the geological epocha, and the nature of the rocks. From the examples previously adduced, marks of this kind acquire new importance, when, in a District susceptible of including deposits of workable ores, the gangues, or vein rocks, are met with which usually accompany any particular metal. The general aspect of mountains, whose flanks present gentle and continuous slopes; the frequency of sterile veins; the presence of metaliferous sands; the neighborhood of some known locality of iron stone; clay-iron; oxyde of iron; the existence of salt springs and mineral waters; may furnish some indications. But, when feruginous or copper-bearing waters issue from sands or clays, such characteristics merit, in the general, little attention, because the waters flow from a great distance. Nor can any greater importance be attached to metaliferous and saline sands.

In speaking of remote indications, we may remark, that, in several places, a certain ore, as red oxyde of iron, may alone indicate the most abundant stratification of silver and lead veins: whence, it is named by miners, the "Iron Pat;" and is one of the most important signs for those minerals which associate with the same.

I will now endeavor to enumerate the different ores, and the relative rocks in which they usually occur.

1st, Tin exists principally in primitive rocks appearing either in interlaced masses, in beds, or as a constituent of the rock itself; and more rarely in veins. Tin ore is found, indeed, sometimes in alluvial lands, in the filling up of low situations between lofty mountains.

2nd, Gold occurs either in beds, or in veins; frequently in primitive rocks; but oftener in alluvial grounds, with quartz and feruginous slates.

3d, Silver, principally in veins and beds of primitive and transition formations though some veins of this metal occur in secondary strata. The rocks richest in it are, gneiss, mica, slate, clay-slate, graywacke-slate, and old alpine limestone. It occurs with the ores of copper, lead, Antimony and cobalt; sometimes with Gold.

but then, always as an alloy in a metallic state.

4th. Copper exists in the three mineral epochs. First, in primitive rocks, principally in the state of pyrites copper, in bed masses, or in veins. Secondly, in transition districts: sometimes in masses; sometimes in veins of pyrites. Thirdly, in secondary strata, especially in cupreous schist—(slate;) in graywacke, mica-slate, as oxyde, in quartz and trap; as sulphurate of various colors.

5th. Lead occurs also in the three mineral epochs; abounding particularly in primitive and transition grounds, where it constitutes veins, and sometimes loads of galena. It is found likewise, in secondary strata, where it constitutes veins, associated with ochre and oxyde of iron and calamine (zinc.)

6th. Iron. This ore is not in my opinion necessary to be explained, since almost every body is acquainted with it.

7th. Mercury (Quick-silver) occurs principally among secondary strata, in disseminated masses, along with combustible substances; and sometimes, in primitive formations.

8th. Cobalt belongs to the three mineral epochs; its most abundant deposits are veins, in primitive rocks; but small veins are found in secondary strata.

9th. Antimony occurs in primitive and secondary rocks, in veins, and sometimes in beds. 10th & 11th. Nickel and Bismuth have never been found in beds or veins, but they accompany cobalt, and sometimes copper.

12th. Zinc occurs in the three several formations, (viz:) as sulphurate, or blende, particularly in primitive and transition rocks; as calamine, in secondary strata; usually along with oxyde of iron, and sometimes with sulphurate of lead.

I will now endeavor to describe the different formations, according to their relative ores.

1st. Primitive rocks, or plutonic rocks, in their origin, are destitute of organic remains. The rocks of one division have been called plutonic, comprehending all the granites and certain porphyries, which are nearly allied in some of their characteristics to volcanic formations. The members of the other class are stratified, and often slaty; and have been called crystalline schists. In these are included gneiss, micaceous schist, (mica slate,) hornblende, statuary marble, the finer kinds of roofing slate, and other rocks, hereinafter to be described. The plutonic rocks differ from the volcanic, not only by their more crystalline texture, but also by their absence of tufts and breccias, which are the products of eruptions—the earth-surface eruptions; they differ also by the absence of pores or cellular cavities, which the entangled gases give rise to, in ordinary lava. These are owing to their cooling gradually from their soft and melted state to a hard one. The volcanic rocks, on the contrary, although they have also risen up from below, have cooled from a melted state, more rapidly, upon, or near, the surface.

Metamorphic rocks are the crystalline schists, marble, and the like.

(Metamorphic means transformed.)

Graywacke is a quartz, or sandstone, which is usually an aggregate of small fragments of

quartz, flinty slate, (lydian stone) and clay-slate, cemented together by argillaceous matter.

Siliceous rocks are a mixture of carbonate of lime and flint; sometimes they are called arenaceous rocks.

Gneiss is dark rock, sometimes nearly black, of a feverous and shining texture; composed of spar, blende quartz, and mica—sometimes talc. When the hornblende and feldspar are in equal quantities, and the rock is not slaty, then it is called Greenstone.

Trap rock is a blackish-gray rock, composed of fragments of scoria and other volcanic lavas, and dust of the same, with augite or hornblende, feldspar, feruginous iron.

So I will not proceed further until I see whether you will insert this; and if so, and you will permit me, I will, in future, give a more detailed or elaborate treatise on the subject of minerals.

Yours respectfully, J. S. TEAS.
 POTOSY COPPER MINES,)
 Davidson's River, N. C. }

From Patent Office Report.

Researches on the Sorgho Sucre.

A new gramineous plant, which seems to be destined to take an important position among our economical products, was sent some four years since from the north of China, by M. de Montigny, to the Geographical Society of Paris. From the cursory examination of a small field of it growing at Verrieres, in France, in autumn last, I was led to infer that, from the peculiarity of the climate and its resemblance in appearance and habit to Indian corn, it would flourish in any region wherever that plant would thrive. But how far it will subserve the purposes ascribed to it in France; should it even succeed in any part of the United States, can only be determined by extended experiments.

There appears to be a doubt among the scientific cultivators in Europe, as to the true botanical name of this plant. *Holcus saccharatus*, which is evidently an error, has been provisionally adopted by M. Louis Vilmorin, of Paris; but as the term is already applied to our common broom corn, if not to other species, this name cannot with propriety be retained. *Sorghum vulgare*, (Andropogon sorghum, of others,) M. Vilmorin thinks, in all probability, would comprehend it as a variety as well as Andropogon cafra, bicolor, etc., of Kunth. Mr. Leonard Wray, of London, who has devoted much time and attention to the cultivation of this plant, with a view of extracting sugar from its juice, at Cape Natal and other places, informed me that in the southeast part of Caffraria there are at least fifteen varieties of it, some of them growing to a height of 12 or 15 feet, with stems as thick as those of the sugar-

cane. M. Vilmorin also says that, in a collection of seeds sent to the Museum at Paris, in 1840, by M. d'Abadie, there were thirty kinds of sorghum, among the growth of which he particularly recognized several plants having stems of saccharine flavor. Thus it will be seen that there is much cause of confusion and a necessity for a critical examination of the subject. I would state, however, that Messrs. Vilmorin and Greenland are engaged conjointly in the cultivation and in determining the properties of this and the allied species, and we have every reason to hope that their researches will enable us soon to know their botanical types.

The plant which was experimented upon at Florence, in 1766, by Pietro Arduino, for the extraction of sugar, very likely belonged to this or some allied species; yet it must have been of a different variety, since he describes its seeds as being of a clear brown color, while those of the plant in question are quite black, and in appearance identical with the black sorghum of the old collections.

The sorgho sacro is a plant which, on rich land, grows to a height of from 2 to 3 or more yards. Its stems are straight and smooth, having leaves somewhat flexuous and falling over, greatly resembling Indian corn in appearance, but is more elegant in form. It is generally cultivated in hills containing 8 or 10 stalks each, which bear at their tops a conical panicle of dense flowers, green at first, but changing into violet shades, and finally into dark purple at maturity. In France, it is an annual, where its cultivation and period of growth correspond with those of Indian corn; but from observations made by Vilmorin, it is conjectured that, from the vigor and fullness of the lower part of the stalks, in autumn, by protecting them during the winter, they would produce new plants the following spring. If cultivated in our Southern States, it is probable that the roots would send forth new shoots in spring, without protection, in the same manner as its supposed congener, the Dourah corn. At the North, the maturity of the seed probably would be more certain if planted in some sheltered situation; but if the object of cultivating for the extracting of sugar, or for fodder for animals, an open culture would be sufficient where the soil is rich, light, and somewhat warm. According to the experiments of M. Ponsart, the seeds vegetate better when but slightly covered with earth. M. Ledocte proposes to associate with the plant another of more rapid growth, such as lettuce or rape, in order that

the laborers may distinguish the young sorgho from grass, which it greatly resembles in the early stage of its growth. Any suckers, or superfluous shoots, which may spring up in the course of the season, should be removed.

The great object sought in France in the cultivation of this plant is, the juice contained in its stalks, which furnishes three important products, namely: sugar, which is identical with that of cane, alcohol, and a fermented drink analogous to cider. This juice, when obtained with care and in small quantities, by depriving the stalk of its outer coating or woody fibre and bark, is nearly colorless, and consists merely of sugar and water. Its density varies from 1.050 to 1.075, and the proportion of sugar contained in it from 10 to 16 per cent., a third part of which is sometimes uncrystallizable. To this quantity of uncrystallizable sugar, this juice owes its facility of readily fermenting, and consequently the large amount of alcohol it produces, compared with the saccharine matter, observed directly by the saccharometer. In so far as the manufacture is concerned, this plant appears to have but little chance of success in a northern climate, as a large proportion of that which is uncrystallizable is not only a loss in the manufacture, but an obstacle to the extraction of what is crystallizable. It must not be understood, however, that the produce of this plant is unprolific or difficult to obtain, but that all things being equal, its nature renders it more abundant in alcohol than in sugar. Yet it would be very different in the warmer climate at the South, where sugar-cane is difficult to be obtained, in requiring protection from frost. From experiments made by M. Vilmorin on some dried stalks of sorgho sent from Algeria, it proved that the product of sugar obtained from them was infinitely superior to that produced by the same plant which had been cultivated near Paris. I was also informed by Mr. Wray, who experimented upon the juice at Natal, that the proportion of crystallizable sugar quite predominates where the climate allows the plant fully to mature.

The chief advantage of the sorgho, as a sugar plant, is the facility of its cultivation and the easy treatment of the juice. It is thought that the rough product may surpass that of the sugar-cane in those countries where the latter is an annual, and like which, its stalks and leaves will furnish an abundance of nutritious forage for sustaining and fattening animals. As the molasses, too, is identical with that manufactured from the cane, it may be used in the distillation of rum, alcohol, and the liquor call-

ed "tafia," which resembles brandy. The greatest difficulty to be apprehended, probably, would be the preservation of the stalks from fermenting, owing to the short time left to the manufacture. This, however, might be obviated, as Mr. Wray informed me that, in the neighborhood of Natal, the Zoulous-Caffers preserved it for a long time by burying the stalks in the ground, notwithstanding the climate of their country is very warm and damp. It will also be observed that in the manufacture of brandy or alcohol, the uncrystallizable sugar can be turned to account, which, in a measure, would otherwise be lost. Another advantage consists in the pureness of the juice, which, when thus converted, from the superiority of its quality, can immediately be brought into consumption and use. The alcohol produced by only one distillation is nearly destitute of foreign flavor, having an agreeable taste, somewhat resembling noyau, being much less ardent or fiery than rum.

One of the points M. Vilmorin was desirous of establishing was, at what period of the growth the stalks began to contain sugar, and, consequently, when its manufacture should commence. He came to the conclusion that it coincided with the putting forth of the spikes; but the proportion of sugar in the stalk continued to increase until the seeds were in a milky state. In the plant in flower, he observed that the amount of sugar diminished in the merithalles, (parts of the stalks between the nodes or joints,) the nearer they were to the top; and, also, that the lower part of each merithalle contained less saccharine matter than the upper. In consequence of this, and owing to the smallness and hardness of the lower knots, the centre of the stalk is the richest portion. He was inclined to the opinion that, at a later period, the merithalles lower down the stalk are impoverished in the amount, if not in the quality of the sugar they contain.

The ripeness of the seeds does not appear much to lessen the production of sugar, at least in the climate near Paris; but in other countries where it matures when the weather is still warm, the effect may be different. According to the report of M. de Beauregard, addressed to the "Comice de Toulon," the ripening of the sorgho, in that latitude, has no unfavorable effect; and he considers the seeds and the sugar as two products to be conjointly obtained. On the other hand, Mr. Wray says that the Zoulous-Caffers are in the habit of pulling off the panicles of the plant the moment they

appear, in order to augment the quantity of saccharine matter in the stalks. This question may be of some importance in our Southern States, should this plant supersede in any manner the sugar-cane.

Having considered some of the probabilities of this product in an economical point of view, it remains only for me to recommend it to the attention of others who may have opportunities to cultivate it, and the means and talent to prove or refute, by direct experiment, its worth.

D. J. B.

Management of a Stock of Hogs.

Does it pay to keep hogs upon a farm? that is the question. We don't know that it does, but we think it ought to pay. It is getting to be a general impression, that to raise one's own pork, and to save one's own bacon, is an expensive luxury. We do not think it is necessarily so, and will give our young friends and others who want advice a few practical hints on this subject.

A good breed of hogs you must have to start with, and thanks to the improvements of the day, you can easily get. No matter how good the breed, however, never suppose he is to live and thrive without proper and sufficient food. The more artificial the breed, and the highly improved, and the more capable of yielding a profit to good management and proper treatment, the less capable they will be of shifting for themselves. If you want a hog that will take care of himself, tear your neighbor's cornfield to pieces, and yield you no profit, get the land shark, with his nose, back, and belly exactly suited to carrying out the intelligent designs of an animal which, from its earliest infancy, has been thrown upon its own resources.

Having got a good breed, have a generous confidence that he will repay your most careful attention. It is desirable to have a permanent fixture, a lot of one or two acres, according to the number you keep, and in this have good lodging pens, where in all weather they may have dry beds of leaves, and make themselves quite comfortable—these may be made of logs, as is very common on large farms, but made of posts with plank on the most economical scale, are cheaper, perhaps, in the end. Give him any amount of liberty which may suit your convenience—let him roam in the woods in winter, or in the pasture in summer, but have your lot and your houses where you can at pleasure, bring them under proper restraint, and give them protection. This lot will be very useful likewise to put your pen hogs into for a week or so, in anticipation of their closer confinement in their feeding pens, that the change may not be too sudden from their larger liberty.

Management of a stock of Hogs.—The usual practice in the management of hogs is to keep the whole stock for the fall killing, through the previous winter. In this practice lies perhaps, the secret of want of success in hog-keeping. The most economical method, we are inclined to think, would be to keep sows enough to have the whole stock of pen hogs come about

1st March; to be well prepared with ruta-baga turnips, or other roots, a lot of rye or other early pasture, and clover field, to furnish both sows and pigs with full supplies of succulent food from the start, and throughout the season, and such other food, as may keep them rapidly growing throughout the season. Such management may bring any tolerable breed to a weight of 150 to 170 lbs. by middle of December.

This plan would require for a pen of forty hogs, eight brood sows. These sows with the boars, would be the whole stock to be wintered. They should be so managed that they would bring their pigs by the 1st of March, and allowing for miscarriage or other accidents, might be relied on to average five to the sow. The sows being allowed to breed again, would have as many or more pigs about 1st September. These in a good pasture would cost very little to raise them, and might be disposed of in the fall, leaving only the stock of sows and boars after the annual killing. Of the eight sows, four might go into the fattening pen annually, to be substituted by four young ones, so as to have always one-half the number, old breeders. When this is done, it would be advisable not to allow the four which are to go into the fattening pen, to breed in the summer.

Another arrangement, a compromise between this plan and the common method would be, for a pen of the size mentioned, to have four brood sows. The August and September litters of these, being kept in good condition, would go easily through the winter with proper care, and with the four sows and boar would constitute the stock to be wintered. Then taking the March litter as before, force them rapidly forward, and unless the fall litter has been particularly well kept, these will rival them in the killing pen. We think either of these suggestions, under judicious management, would take the balance of the hog account from the loss to the profit side. True economy in the management of all animals requires that they be carried as rapidly as possible through the chances of life to that point of development at which they afford a return, and he is the best manager who approximates this in his practice. Old habits and old prejudices will fight against it, but we will come to it by and by.

Feeding.—A corn and cab crusher the man who keeps twenty hogs must have—that is settled. A boiler we think he will have, if he is determined to make the most of his means. He should grind every ear of corn, and soak a number of hours at any rate, if he does not steam or boil. If he only soaks, he should have two tubs, to be fed from alternately, and whenever he empties one, fill it again. If it ferments somewhat, it will be the better. Boiling, however, would be much better, and ensure the appropriation of the whole nutritive matter. This food, with Ruta-baga turnips or other roots boiled or unboiled, both occasionally perhaps, and in such quantity and proportion as your judgment and experience may direct, will be the proper food for your sows—giving them enough only to keep them in good condition during the period of gestation, and ample supplies when nursing. A rye pasture will give

early and valuable green food. (Rye for this purpose should be sown $1\frac{1}{2}$ bushels to the acre,) and the red clover succeeding, will keep up the supply. The pigs to be weaned at ten weeks old but to be accustomed long before that, to eat from troughs in pens from which the mothers are excluded. When weaned, see that they do not lose ground, but push them on. The sows, if well fed, will soon breed again in time to bring their litters, by the last of August. These litters, if your sows have a good wood range, we have known run till Christmas without a grain of corn, and make very good thrifty shoats. The feeding of all intended for the fattening pen must be regularly carried on through the season. An acre or two, or more, of field peas would be desirable pasture for them about September. By the beginning of October they should be brought into the enclosure mentioned in the beginning, their ground corn gradually increased, with pumpkins, &c., and by the middle of October, have them in their pens on full allowance of corn until fat—taking advantage of the moderate fall weather for fattening, and killing on the increase of the moon—not that we believe in the moon, not at all, but that's as good a time for killing as the decrease, and why not take all the chances against shrinkage in the pot.

The points that we would press as to feeding, is a generous supply from the beginning, but moderate or full in proportion as you may want a moderate size—say 150 lbs., or a larger, say 200 or more. We recommend a gradual change from pasturage, increasing the supply of more nutritious food until he can, without injury to his digestion, take a full supply—also gradual change from a free range, first to his lot of an acre, and then to his close feeding pen. Then we recommend the most thorough preparation of his food by grinding and boiling. These, with tight dry pens, will settle the question whether hogs will pay the cost of their keep.

If the reader thinks he will further test the matter, let him open such an account as the following. It will add much to the interest of his farm operations to have a number of such accounts, and tend to promote accuracy and care in the general conduct of his business transactions:

Stock of Hogs to A. B.	Dr.
To value of stock of Hogs on hand 1st January, say eight brood Sows, at \$10.....	\$80 00
One Boar.....	15 00
To Corn furnished them for 3 months, } say	36 00
To Ruta-bagas " " " }	
To Corn, Pasturage, &c., from 1st April to 1st October, say.....	64 00
To feed and attendance on pen hogs.....	120 00
By 40 pen hogs, at 140 lbs. each, 5,600 pounds, at 5 cents.....	\$280 00
By 40 pigs (the August brood) at \$1	40 00
By value of stock on hand at the end of year, viz: 8 sows and 1 boar,	95 00
	\$415 00 \$315 00

This account if taken as correct, would show a profit of \$100 above all expenses. It does not profess, however, to do any thing more than illustrate how such an account may be kept.

The owner must take credit for the stock on hand at the beginning, and must give credit for the stock at the end of the year, in order to show a correct account. He may at the beginning of the year, measure off a month's allowance or a week's allowance; whenever this is done, make a charge at the price of the grain upon the farm—if a portion of the grain is not merchantable, a proper deduction is to be made from the price. The allowance for pasturage must be a mere estimate, varying very much with circumstances. A person having a large field of clover, with which he wished to improve his land, might consider the trampling of the clover an offset to the value of the blossoms they would eat, while under the circumstances, the use of the grazing lands might be of considerable value; of this every one must be his own judge. If the two sides of his account balance at the close of the year, the price of his pork is paid on easy terms, he has got a market for much unmarketable food perhaps, and he has the satisfaction of eating his own bacon, which of course is a little better than that of any body else.

As to the method suggested above for the management of the stock, while we think it probable that of having all spring pigs the most economical, when well managed, that of having one-half spring pigs, and one-half of the previous summer, might be safer as a medium between the old and new systems. In either case, however, it is a part of farm management which requires much closer attention, than it ordinarily gets.

A Peep at Dr. Phillips' Plantation.

The following, which we copy from the *American Cotton Planter*, relating to an esteemed correspondent of the F. & P., will be read with interest by our subscribers—anti-book farmers; and we know several such who are in the habit of slandering writers on agricultural subjects, by whispering it about that they are the “poorest farmers and managers in all the country,” would do well to pay Dr. Phillips, and many writers we know of, a visit; it might shame them into the truth, or stop their slanderous tongues in future.—Ed. F. & P.

DR. CLOUD—*Dear Sir:*—In my letter to you from Mountvale Spring, Tennessee, in which I wished to know if you had any bound volumes of the *American Cotton Planter*, I informed you that I should soon visit Hinds County, Mississippi, and the section of country adjacent. After a travel of about 1100 miles by railroad and water, I am here, and must say that I like the country, thus far, remarkably well. It is true this country is low and flat, and the “long moss” is hanging from every tree, which some say, is an indication of a sickly country. But from what I have been able to gather from those who live here, (and, of course, they should know,) *there are fewer deaths in this county—Hinds—than there are in any of the upper counties of*

Georgia. This is a far better cotton country than any portion of Georgia—Baker, Lee and Dougherty not excepted. On their fresh lands, they don't think of making less than 2,000 lbs cotton per acre.

A planter on the Mississippi River, above Vicksburg, has made this year, off of 300 acres, 600 bales of cotton. Very few of them have much cotton in the field.

The planters here are very enterprising, and men of capital. Their system of plantation economy vary as elsewhere; some contending that this mode is the best, and some that. But from what I have been able to see and gather Dr. M. W. Phillips, of agricultural memory, is the best farmer in this country. At any rate, I am sure that things are “done up more brown” on his place, than any other place I have seen. His *bountiful* supply of agricultural implements are nicely stowed away under shelters. Negro houses well arranged, some two feet off the ground, with brick chimneys to the most of them, and preparations making to build to the balance. His negroes are well cared for in every respect, and they have to obey him. His pork hog-lots are well littered every day or two, and pumpkins, meal, &c., boiled to feed to hogs. For this business he has a particular hand, who attends to nothing else. His supply of provisions for the next year is bountiful—indeed, he will have corn and pork for sale. The Dr. is dead against all cotton and nothing else. He believes in making every thing at home that the wants of the place require, compatible with the soil and climate; and he comes as near “proving his faith by his works,” as any planter I know.

The Dr. is a very energetic man—never idle; when he is not in the field, nor about the lots, he is at his desk, writing.

And again: I found on his place what I regard to say, is not to be found everywhere—his negroes are instructed as to the things which pertain to the world to come. He seems to feel that responsibility which every master should feel, who has a servant under his care. A minister is paid to preach to the negroes in this neighborhood, and I am told that much good has been done. If the low flung abolitionists, who have so long lamented over the condition of the “poor slaves of the South,” should visit this section of country, and compare the condition of the slaves here with that of the free negroes of the North, they would blush, and go home with their mouths shut—convinced of the fact, that the sons of Africa North of “Mason & Dickson's line” were more the objects of their

tears and sympathy, than those South of that line. But to return.

There is one thing here which I consider of importance, in which planters, overseers, all, are deficient. I have not seen any horizontalizing that I would give a cent for. It is true that I have seen on some farms crooked rows, and that is all. Many of the farmers need it, must have it or they are ruined. But they are waking up on this subject.

Yours, &c.,

RAMBLER.

Edwards, Miss., Nov. 26, 1855.

From the Independent Press.

A Warning to Farmers.

MESSRS. EDITORS:—I think it proper to set forth a few facts, as near as I can, according to the information that I have received, and leave it to your wisdom and prudence whether to publish them in the *Independent Press* or not. My design in stating these facts is, the benefit of any (if there should be such) who may have as little information as I had of the harm which cows are liable to sustain by eating sweet potatoes, when decayed or partially so.

Recently I had some potato banks opened, and found them largely decayed. There was a considerable amount of them thrown out to the hogs. The milch cows and stock cattle got to them and ate. How many, I know not. The cattle were in good keeping, and likely ate heartily of them. Nor should I have prevented it had I been present, as I never had heard, that I can recollect, of decayed potatoes injuring cattle. Soon after they had ate of the potatoes, one and another were taken sick, and in less than a week, seven head died. Ten in all were made sick, but three are likely to recover.

We used every remedy that we and our friends thought of, but nothing relieved the poor suffering animals. They appeared to be in great distress from a difficulty in breathing; and after they were dead, upon opening two of them, their lungs were found to be badly congested. We never could attribute their sickness to anything other than the use of the potato in a decayed condition.

If you are disposed to insert these facts, and any one should take warning from it, and use sufficient caution to prevent the like among their stock, I am sure that I shall be gratified, and shall be left to feel that I have acted (I hope) with proper fidelity towards my fellow men.

JOEL W. TOWNSEND.

Cokesberry, S. C., March 15, 1856.

We have fed partially decayed yams to our milch cows the present season, without any apparent injury. They were boiled with other food, however, which may have prevented any bad effects.—ED. F. & P.

An Agricultural Department of the National Government.

The following remarks are by Prof. Mapes, in the *Working Farmer*, and in which we fully concur.—ED.

"We are," says the *Working Farmer*, "the only nation whose government is without a department devoted to the agriculture. The farmers have a right to, and should claim, the appointment of a Secretary of Agriculture, bearing even rank with the Secretary of State, Secretary of the Treasury, &c., who should be a Cabinet officer, and whose department should be so organized as to render every new truth discovered in agriculture, the common property of all. We should be no longer put off with a clerk subordinate to a Bureau officer, and located in an obscure corner of the Patent Office.

"The purchase of a few seeds from some of the large seed-dealers, and then distributed through members of Congress, is as ridiculous a manifestation on the part of the Government to the farmers, as would be the distribution of sugar plums among the senior class of a well organized college by its faculty. If these seeds were of new and superior kinds, collated by our Consuls and foreign agents, it would be well—or any seed of special character, raised at home and known to be superior to others of its class might be distributed with propriety; but when we find well-known sorts common to every part of the country, put up in small packages and distributed as if they were of superior quality, it becomes a mere display of quantity, and is an insult to the intelligence of the day. We blame no individual for this Quixotic display of Government liberality, for the contemptible appropriations of Congress devoted to this use will admit of no better action on the part of those having its disbursement in charge. All this may be remedied by prompt action on the part of farmers themselves.

"The fashionable plea of politicians, that our askings must at first be small, and then they may be gradually increased, arises but from their forgetfulness that they are the servants of the people, and should not dictate to us what we are to ask. They should remember that the farmers form a large majority of their constituents, and that they have a right to demand, that, at least one per cent of the enormous amount they pay for the Government support, should be devoted to the direct advancement of their art. We shall never succeed until we demand precisely what is required, and the whole subject shall meet a full and fair discussion in our legislative halls. The next election succeeding such a discussion will elect such a Congress as will grant what we require; for whenever the subject is fairly before the body politic, all other subjects will be rendered subordinate, until the great interest of the country—Agriculture—shall have received the exercise of the best talent of the land in its favor. We repudiate all low cunning in obtaining what we want. It should be demanded in the most high-minded manner; and the demand should be adhered to until satisfied."

Policy of Southern Planters.

The return of seed-time suggests a few remarks appropriate to the season, and bearing upon the true policy of Southern planters, as derived from the experience of the past.

In many portions of the South agricultural interests have prospered in spite of the defective systems upon which they have been conducted as well as the entire absence of any system, as is the case in numerous instances. A propitious heaven and generous earth have overcome the errors of man and prospered his ill-directed exertions. There are many portions of the country, however, where these blessed influences are less liberally felt, to be found chiefly where the population has become dense and the capacity of the soil exhausted by over-taxing. Here judgment and system become necessary in order to secure a reasonable remuneration to labor; and it is to those occupying such less favored sections that a word of advice may not be wholly out of season or unprofitable.

The over-production of cotton, to the almost entire neglect of cereal crops, and consequently the animal products dependent thereon we have long felt convinced, has constituted the principal obstacle to the success of many of our planters. It may be worked out on paper that it is better to plant cotton and buy bread, pork, mules and horses, with its products; but it is a notorious fact that our planters who act on a different principle and pursue exactly the opposite course, have become the wealthiest, most independent and comfortable class of the community. The truth is the wealth of the country is to day in the hands of just such men and we invite any one who doubts it to look around among his neighbors and he finds a practical attestation of its truth. It is the two and three bag planters that own nearly the entire country; lend money annually to the producers of ten bags, and come in as the chief distributees of the estates of the latter when they die. This is not only true but it is the legitimate results of sound principles judiciously applied.

Could the planter have a guarantee of ten cents annually for his cotton and that the price of flour would keep at six dollars per barrel, corn at forty cents a bushel and pork at four cents, and that all these necessities shall continue to be supplied at his own door, the figure work of the theorist might be regarded as a safe rule for his guidance. But nothing is more uncertain than the happening of these contingencies, and the very fact that his own policy is withdrawing labor from the production of these commodities, is one of the sure causes of the uncertainty. With cotton at five and six cents, and the necessities of life at the common prices which we have had to pay for them for some years past, we can see no other fate for the man who confines his attention to cotton, but inevitable ruin. In the long run the planter who himself produces what is necessary for the support and comfort of his family, and at the same time exercises a proper economy in his expenditures is bound to become prosper-

ous and independent. The whole history of the past fully establishes this fact.

It is our intention merely to glance at the subject in this article, and we have consequently omitted many points that might be brought in to establish the position we are seeking to impress upon the mind of the planter. The difference between the effect produced on our lands by the production of cotton and those of the grain crops constitutes an important item which should not be left out of the account in an investigation of this subject.

The last year presents a practical illustration of the soundness of the views we have presented. A large majority of our planters planted large grain crops and paid less attention to cotton, and the result has been most favorable. Our people were never in more comfortable circumstances than they are and have been during the present winter. Their cotton has brought remunerative prices, while everything around them rejoices in comfort and plenty. The experiment has proved a successful one, and we hope it may be continued until it shall become the settled policy of our people.

[*Savannah Republican.*]

Propagation of Fish.

Information of the highest importance on the artificial propagation of fish was laid before the late meeting of the British Association. Experiments with salmon, made at Perth, Scotland, have been extremely successful. Three hundred boxes were laid down in twenty five parallel rows, each box partly filled with clean gravel and pebbles. On the 23d of December, 1853, 300,000 ova were deposited in the boxes. On the 31st of March, 1854, the first ovum was observed to be hatched, and in April and May the greater portion had come to life, and were at large in the boxes; in June they were admitted into the pond, the fry were fed daily with boiled liver, rubbed small by the hand. By spring of the present year they had increased in size to the average of three or four inches in length. On the 21 of May a committee was held at the pond, to consider the expediency of detaining the fry for another year, or allowing them to depart, but it was thought they had not assumed the migratory dress till the 19th, when the sluice communicating with the river Tay was opened, and every facility for egress afforded. Contrary to the expectation, none of the fry manifested any inclination to leave the pond until the 24th of May, when the larger and more mature of the smelts, after having held themselves detached from the others for several days, went off in a body. A series of similar emigrations took place, until full half the fry had left the pond, and descended the sluice to the Tay. It has long been a subject of controversy whether the fry of the salmon assume the migratory dress in the second or third year of their existence. So favorable an opportunity of deciding the question as that afforded by this experiment, was not to be overlooked.

In order to test the matter in the fairest possible way, it was resolved to mark a portion of the smelts in such a manner, that they might

easily be detected when returning as grilse. A temporary tank, into which the fish must necessarily descend, was constructed at the junction of the sluice with the Tay; and as the shoals successfully left the pond, about one in every hundred was marked by the abscision of the second dorsal fin. A greater number were on the 29th of May than on any other day, in all about 1200 or 1300. The result has proved highly satisfactory and curious. Within two months of their liberation, twenty-two of the young fish so marked when in the state of smelts on their way to the sea, have been, on their returning migration up the river, recaptured and carefully examined; the conclusions arrived at are most gratifying, and proved what has heretofore appeared almost incredible, the rapid growth of the young fish during their short sojourn in the salt water. Those taken first weighed 5 to 5½ lbs., then increasing progressively to 7 and 8 lbs., whilst the one captured on the 31st of July weighed no less than 9½ lbs. In all these fish the wound caused by marking was covered with a skin, and in some a coating of scales had formed over the part.

The experiment has afforded satisfactory proof that a portion at least of the fry of the salmon assume the migratory dress and descend to the sea shortly after the close of the first year of their existence; and what is far more important in a practical point of view, it has also demonstrated the practicability of rearing salmon of marketable value within twenty months of the deposition of the ova.

There can be no doubt that the quantity of salmon (as well as other fish) may be enormously increased by the artificial breeding process, and we regard the experiments of great importance. At Cleveland, Ohio success has attended the first experiments of Dr. Garhek and coadjutor, who may do a vast deal for their fellow men by fully populating our western lakes. In the salmon regions, east and west, the subject deserves attention. And there is little doubt that in neighboring rivers, where salmon are now unknown, they might be thus successfully introduced. How much more useful would it be if some of our sportsmen would take up the subject, instead of devoting their hearts, bodies, and time to the poor enjoyment of shooting useful birds! —*Horticulturist*.

Cultivation of Fishes.

In a paper from the Patent Office, published in the *National Intelligencer*, it is suggested that the fishes of many varieties not now known to them might be introduced into the waters of this country by means of transferring the spawn from one locality to another. The Mullet of the Garonne would be valuable in the Potomac, and also the Sardine. The trout and salmon of the Rhine and its waters would answer farther north; turbot and sole for the Jersey waters, and trout, carp and salmon, for north of the Delaware. The carp, it is known, was introduced into the waters of the Hudson. The golden carp was introduced into a pond near the same river. The breaking of a dam caused these fish to be swept into the Hudson,

where they now exist in tolerable abundance. To a similar accident we are indebted to its presence in the Schuylkill. Mr. Pratt used to have them in a pond at Lemon Hill, whence they were washed into the river, and are now caught by the boys in abundance. The smelt, now abundant in Jamaica Pond, near Boston, did not originally exist there, but was carefully transported either from Europe or from some section of this country.

Salmon and shad were formerly found in the Merrimac, and the latter in Lake Winnepiseogee and its tributaries; but since the establishment of manufactories at Lowell, and the consequent damming of the river, these fishes have disappeared from all the upper waters; while, on the other hand, the opening of communication between Lake Erie and the Hudson has introduced to that lake and its accessories, eels and perhaps other fish not previously found there. The same result has been experienced in Lake Ontario since its connection with Lake Erie by means of the Welland Canal. The officers of the Navy on foreign service could have assigned them the duty of collecting varieties of fish not known in the waters of the United States.

Mr. Peel of Sangerties, New York, has shad, carp, tench, gold fish, &c., in the ponds on his estate, and so well are they protected from molestation of every kind that upon the appearance of persons at the margin of the waters they approach to receive food from their hands. This gentleman, it is said, has a sturgeon, seven feet long, and when he wants a sail on his pond, he harnesses this sturgeon, attaching a line and cork float to the traces. The sturgeon will swim with the utmost speed around the pond several times, keeping near the shore. Then he will suddenly stop, rise to the surface of the water and turn upon its back, thus indicating its exhausted condition.

[*Philadelphia Ledger*,

From the *Carolina Cultivator*,
Dignity of Labor.

The time has probably passed by when it was necessary to urge upon intelligent men the importance of industrious habits. There are however some of the spoiled children of fortune who imagine that personal labor is servile, and derogatory from the dignity which belongs to them. This false notion of respectability is not peculiar to the South, but owing to the character and relations of the different classes of the population in the slave States, adheres more permanently to certain families, and descends from one generation to another with more regularity than in any other part of the country.—This circumstance has given rise to the unjust misrepresentations prevalent in other States in regard to the hereditary characteristics of the Southern people but an impartial investigation would satisfy the candid inquirer that this species of pride is peculiar to no part of the Union, but manifests itself wherever wealth is enjoyed by ignorant and indolent men.

But the false dignity to which we refer, wherever it may be found, is one of those social evils

which deserve universal rebuke. It exists in every community and everywhere insults honest labor with its air of contempt. There are many persons who, taking every occasion to flatter the hard-fisted commonalty, as they consider them, as "the bone and sinew" of the nation nevertheless betray the true measure of their regard for them by social neglect and unwarranted distinctions. This spirit must be met and conquered by the farmers and mechanics with a dignity of another kind. They must learn to illustrate in their own persons and character the true dignity of labor. This will ever depend upon the principles, manners, and accomplishment of those to whom it belongs.—Let it be seen and felt that he who can demean himself at his own board with the manly bearing of a cultivated gentleman, can also stoop to the humble labors of the farmer and the mechanic, and that miserable prejudice which prevails against labor will be mortified into silence. To this end those who are accustomed to toil, should carefully attend to the refreshments of life, and prove to the world that the one is by no means incompatible with the other. In this way labor may be elevated to its proper dignity, and rendered attractive and delightful.

From the Northwestern Farmer.
The Mad Itch.

FRIEND MILLER :—I have often seen in your paper, inquiries for a cure for the mad itch ; and as I believe that whatever will add to the health, prosperity and happiness of man or beasts, should be made public, I will give you, for the benefit of your patrons, what has always been to me, and all others with whom I have seen it tried, an infallible remedy. I will not pretend to say what the causes may be, but I have seen it on cattle that never had eaten of the corn-cob or stalks after the hogs had extracted the sap." It may be known on calves by their making an effort to suck, and not being able to raise their noses high enough. The animal looks dull, and exercises but little; ears droop; in the last stages of the disease bellows a great deal; staggers around, seeming to experience great pain, and dies, usually in about twenty-four hours—sometimes in half this time.

CURE.—Take half a gill of turpentine, and rub in all along from the forehead to the tail, if the disease is very bad; but if taken in its first stages, a little on the head and neck will cure. Keep the animal dry. It seldom needs more than one application. If any of the readers of the Farmer, will make public so simple and effectual a recipe for the Black Leg, Dry Murrain, or Dry Belly, they will confer a favor on the writer and the public.

E. D. PHILLIPS.

Mineral Point, Feb., 1856.

Hornless Sheep.

A correspondent of the *Ohio Cultivator*, some time since, advocated the breeding of polled or hornless sheep, over those with horns. His suggestions are worthy of note ;

"I have many years regarded horns on sheep in a domestic state, as not only a useless, but a troublesome and expensive appendage; and in 1845 fortunately getting hold of a very superior polled ram, I commenced to try to breed a flock which should be hornless. I proceeded by not only selecting polled rams; but so far as practicable, perfect polled ewes also; and here let me remark, a ewe that appears to the casual observer to be without horns, is not always a perfect poll. There must be a cavity, instead of a fullness, where the horn usually attaches, or she cannot be depended upon to produce polled lambs with certainty, although the sire be polled.

The results of eight year's labor is, I do not have but one horned ram in about ten or twelve; and I do not believe I have sacrificed one iota of inform or constitution, or in quality or quantity of wool.

Some of my objections to horns are briefly as follows:

1. The substance that goes to make horns is the same that enters into the composition of wool.

2. If rams are polled, you may let all the pure blooded ones run *entire*, to the age of one or two years, and then any that are rejected as rams, will make as good weathers as if gotten while lambs.

3. Where horned rams run in flocks in summer, they are sure to fight, and if they do not kill each other outright, lose the skin about the horns, become fly-blown, and without constant care, more or less of them die.

A gentleman who has been engaged in wool-growing over twenty years, and who keeps near two thousand sheep, told me he annually lost enough rams from these causes to pay all his taxes.

4. Horned rams frequently strike ewes in the side, bruising them and loosening their wool, and occasionally causing them to cast their lambs.

5. You can shelter and feed about double as many polled as horned rams in a given space.

In conclusion I would say I am always open to conviction. Has any one a reason why sheep in a domesticated state should have horns?"

Curious Property of water Divested of Air.

In a lecture recently delivered before the Royal Cornwall Polytechnic Society by Robt. Hunt, F. R. S., attention was directed to some remarkable points in connection with the action of heat on water that contained no air, stating that, arising from this circumstance, as well as from the spherical condition of the steam generated, we have two very active and predisposing causes of boiler explosions. Water we know in three conditions—as a fluid, as steam, and ice—or as solid, liquid, and aëri-form. Water is frozen by the loss of heat necessary to maintain its fluid state; ice formed during agitation contains no air bubbles; but under ordinary circumstances (as Wenham Lake ice) the upper portion is filled with air

bubbles in straight lines, as if, in endeavoring to make their escape, they became entangled among the crystals. It is a remarkable fact that water in the process of congelation has the power of rejecting everything, consequently all the air the water contains is expressed. If we get water which contains no air, and prevent the access of air to it, it will not boil at 212 degrees Fahrenheit. In this state we see the temperature increasing to 230, 240 or 250 degrees, and advancing between 270 and 280 degrees. About these points the whole mass will explode with the violence of gunpowder. This condition of water is not unfrequently found formed in steamboilers, and that during the process of ebullition the steam carries it off with the air the water in the boiler containing very little remnant of air itself.

It often happens that a steam boiler explosion occurs after a rest of the engine, and that, when the men return, the feed water being applied to the water explosion takes place. Professor Drone has found that if we take water of its peculiar character, bringing it up to 230 degrees, and place a single drop of ordinary water into it, the whole will boil with extreme violence. Supposing that ordinary water contains no air, and the feed water is turned on, the entire quantity will then burst into explosive ebullition. We shall probably find, therefore, in connection with boiler explosion, that to the absence of air may be attributed many boiler explosions so frequently happening which otherwise cannot possibly be accounted for. It may be further stated that if we take a glass of water, and add any poison—say corrosive sublimite, or a strong acid, or even an ardent spirit—and then freeze the water agitated during the process, we shall find the ice gets tasteless, colorless, and inert, and that the poison, the acid, or the spirit, will be gathered into an intense drop in the centre of the ice, and all the body will be perfectly pure. To our knowledge of this fact may be attributed the practice of the Russian Nobles, who, when they desired to have more ardent and intoxicating drink than usual, plunged their bottles of wine or spirits into their frozen rivers, until the contents became solidified and then drink the ardent drop which remained within the centre of the glass.

[Scientific American.]

Japan and Oregon Peas---Vineyards, Etc.

The following account of the Japan Pea, we find in the *Southern Cultivator*, and are surprised at seeing, after other accounts we have seen elsewhere. We shall, at any rate, make a trial of a few sent us from the Patent Office.

The writer's opinion of the Oregon Pea, which some persons condemn in unmeasured terms, is much more favorable, and for the uses mentioned, and for the improvement of land, we doubt not are correct.—Ed.

EDITORS SOUTHERN CULTIVATOR:—Did you plant any of those Japan Peas? If you have not, take my advice and leave them alone! A friend made me a present of a half pint last spring,

and I planted them very carefully; they grew very luxuriantly, bore a fine crop of hairy pods, each containing two peas, which, by the way, are very difficult to shell out. I was induced to try a dish of them. When they came on the table each pea was like a buck-shot. I have since tried them by boiling from breakfast until dinner, with very little better success; in flavor they are no better than our common cow pea. As fodder they will not compare with that valuable plant; for the stems are like young hickories, and the pods like sheet iron with wool over it. The pea is not unlike the ordinary marrow-fat pea; the pods grow closely and thickly along the main stem.

With the Oregon Pea I am well pleased; with equal advantages it will produce double the weight of fodder that our cow pea will; and the fodder is more easily cured without the loss of leaves, and is greatly eaten by cows, horses or mules. I planted ten acres in corn, in the same way and at the same time that peas are planted, and was delighted with the results.

The pods are small, but grow at the ends of branches in clusters, and are easily gathered; the pea is very small, much like Okra seed, and one person in a day can gather enough to plant five acres. As a vegetable for the table they may rank with cow peas, but as fodder for animals I think highly of them.

While speaking of fodder, I would inquire whether Professor Bachman is not mistaken in calling our Crowfoot and Crab grass foreigners? I have never seen either of them in Europe, nor do I see them mentioned among European grasses, and, if I mistake not, Botanists have usually considered them as natives.

Our Vineyards are progressing finely, and many more acres are being planted out, with the luscious Warren, Isabella and Catawba—those appear to be the three fair rivals at the South, each, no doubt, possessing fine qualities; it remains to be seen which will finally assume the first rank. If we can but keep humbug out of the way, our cause is won.

A.C.

Woodward, S. C., 1856.

The Use of Saliva.

We gather the following from the recent lectures of Dr. H. Bence Jones, of London:—Ed. SOUTHERN PLANTER.

"The action of the saliva upon the starch we take as food is similar to that of a ferment, and causes it to undergo a change into sugar. If you take a portion of pure starch and hold it in the mouth for only two minutes you can obtain distinct and decided traces of sugar. We have here a solution of starch not treated with saliva, and if we employ our test for sugar which you well know (sulphate of copper and liquor potassæ,) we have no reduction of the oxide of copper; but in this other mixture of starch and water, which has been held in the mouth for two minutes only, you may see distinctly a beautiful red line of reduced copper, the evidence of the presence of sugar. If the starch is left in the mouth for three minutes, a still more manifest action is apparent; and if it remains there five minutes, there is a dis-

tininess of reduced copper, which is proportioned to the quantity of sugar formed out of the starch."

There are many sources of the sugar found in the body. It is found for the most part in vegetable food already formed, and it arises from the action of saliva on starch. It is present in considerable quantity in milk, and minute traces of it are contained in muscle; but; still farther, it is always produced by the action of the liver. We have a large quantity of fat going into the liver by the *portal vein*, and a large quantity of sugar coming out by the *hepatic vein*. This sugar is always found in the liver not only when vegetable food but even when animal food is taken.

For the Farmer and Planter.

Review of the March No. of the Farmer and Planter.

MR. EDITOR:—The March No. of your Journal is before us, and as the day is exactly one of the dark days of the season, we must try to strike a light in doors.

A CHAPTER ON FISH, &c.—A most interesting and well written chapter we take it, although we know nothing of fish or fishing, and as we have a mortal dread of all ponds, we are sure that our experience will remain in *statu quo*.

"THINGS IN GENERAL"—Mr. McB. gives a gloomy picture of the "Hickory Hill" region; yet, we doubt not but his picture would apply to many other sections. Corn will command \$1 per bushel in more places than one before harvest. But you may as well "sing psalms to a dead horse," as talk to people about planting more grain and less cotton. It is one of those doctrines everybody will preach, but very few practice.

We cannot subscribe to the opinion that we have more than enough cotton already. There is no danger of over production—that bubble has been long since blown up. Our aim and the only true policy of the country should be to make, by *good culture*, both more grain and more cotton than we do, and by clearing land as little as possible. That is the problem to be solved; if it cannot be done, we must give up cotton, and move to a better country. As long as cotton is the *cash* of the farmer, his forests will fall before the axe. When it runs up, and lands and negroes be bought at high prices, and when cotton falls, he must plant more cotton to make up for his low prices—*till he gets out of debt*.

"THE DHOORA."—The pop-guns which are being fired off in various quarters in behalf of this wonderful grain, but too plainly indicate that we are in for another humbug before the "Oregon" has fairly died out. About fifteen

years ago there swept a Dhoora epidemic over some parts of the country, and as extravagant stories was told of its productiveness, nutritiveness and cheapness, as are now going the rounds. We saw many fancy fancy patches then—we heard it asserted upon good authority, that it would yield 100 bushels per acre—that it would fatten everything—that it was good for soiling—in fact, good for everything. We experimented with it, too, and found it a good fancy patch corn, a good chicken corn, and pretty good for hogs. For soiling it is not equal to millet, lucern or vearze.

Now, why did it die out? why did the fever cool off? Has the public opinion of the value of Indian corn, wheat, oats, rye, barley, rice, potatoes, peas, beans, buckwheat or cotton abated in the least during the last twenty years? Maj. G. states that he had fattened his hogs on peas, ground nuts and Dhoora, without a bushel of corn apiece. Would they not have grown fat without the Dhoora? We want nothing better than peas and pinders, and can fatten hogs on peas and a bushel of corn apiece, without pinders or Dhoora.

All persons who have a fancy for pet patches, and have rich lots and leisure, will do well to cultivate Dhoora; but we entreat our farmer friends to keep their eyes open, and remember Oregon Peas once sold at a dollar a pint, and Resene Grass at five dollars a peck.

"RED CLOVER."—Your correspondent, "T." if he is a "plain farmer who attends to his own business," evidently knows how to do it and how to talk about it. This letter is worth the year's subscription to the *Farmer and Planter*, and if we could only draw out the right sort of men in the right way, there would be very little complaint about the neglect of agriculture. The last paragraph of "T's" letter is a finished commentary upon our system—the whole truth in a nutshell. Cotton \$4 to \$6—grass, grain, improvements in the ascendant. Cotton \$9 to \$10—grass, grain, improvements, stock and on a descending scale. The laws of trade will rule. With clover, our success has been varied—we have oftener failed than succeeded—we are satisfied that a tenacious subsoil, (red is best) with plenty of lime in it, is absolutely necessary.

2nd. We never could make much clover from poor land.

Red clover contains—

Potash	19.95.
Soda,	29.
Lime	27.80.
Magnesia,	3.33.
Sulphuric acid,	4.47.

No land can be poor that will yield good crops of anything abounding in such salts as these. Red-top, we are inclined to believe the surest grass on wet soils of all others. It makes fine hay, and is a pretty good winter pasture grass. On cold, spongy soils it will pay better than any other grass.

"EDITOR'S TABLE," EXECUTIVE COMMITTEE. &c.—You have good reasons for saying that you have strong friends on the Executive Committee of the State Agricultural Society; and if you have an enemy upon it, or one who has the least wish to put down your Journal, he is not known to the Committee. The Executive Committee had no friends to reward, or enemies to punish—as its name indicates, it was simply its duty to carry out the designs of the majority of the members of the South Carolina State Agricultural Society, independent of all private or personal considerations. The Society had unmistakably pointed out Columbia as the place of publication whenever a paper should be decided upon. The field was open to all, any individual had the right to offer himself as a candidate, and to bid for the printing.

As you remark, very properly, "the State is large enough for both Journals," and instead of injuring each other, they should benefit each other by that increased zeal that fair competition and honest emulation is always sure to inspire. A State which can boast of 29,963 farms in cultivation, and has not the intelligence or liberality to support two agricultural papers at \$1.00 per annum, must be at a very low ebb.

These two papers, we take it, are to be the exponents of the agricultural interests or opinions of the State. Individuals have no right to carry their personal feelings into the columns of either, and we trust that an unkind or uncourteous remark may never disgrace the columns of the one in relation to the other. They have both high and noble duties to perform, and we trust that they will be found worthy of the trust. We have spoken thus frankly, because we feel sure you can have no doubts of our sincerity.

"SEED CORN."—We have seen so much of this butt end and little end theory, that to be convinced we have just planted five acres of each to satisfy our scruples. Single rows are not proofs.

RUST ON COTTON.—Deep plowing and ashes, we have found the best preventive. All experiments with salt, as far from the sea board as many of us live, and at the mercy of the most illiberal and most unaccommodating Railroad

companies in the world, will be like the Indian's gun.

"POMOLOGICAL."—This branch of agriculture is growing daily more popular, and it is refreshing to see a desire springing up to reform past abuses. The rage for Northern varieties is abating, and people are beginning to discover that we have fruits "to the manor born," full as good, if not better, than the "furrin sorts." We have not, unfortunately, made the discovery quite soon enough. The country has been flooded with worthless trees, unadapted to our climate, and full of pestiferous insects imported with them.

We should patronize home Nurseries and home varieties. The Green Limbertwig, the Granny Buff, the Clarks Pearmain, the Penkins, the Gully, the Mal Carle, the Shackley, and many other varieties have been tried at the South, and can be had of those enterprising Pomologists: Wm. Summer, Pomaria, S. C.; Mr. VanBuren, Clarksville, Ga.; Thurmond, & Co., Atlanta; Thomas Afflecks, Washington, Miss.; and doubtless others, who can be relied on.

"OATS AS AN EXHAUSTER."—Our friend, Dr. P., must not misunderstand us. We are an oat man, and always expect to go it strong on oats. We admit they are worth what they cost us, but are not willing to admit what some claim for them, that you can grow oats for years upon the same land, making better oats and better land; it is sheer humbug. Such doctrine, i. e., if you carry off the crop. The twelve inch plowing of the Dr.'s will improve any land and all stock kept off. But we are free to confess that we have never succeeded in making one oat crop succeed another, or a crop of oats upon fallow. Our land is either poor oat land, or we are a poor farmer. One horn of the dilemma we must take. Dr. P. underrates the Jerusalem artichoke. It is not as rich in fat-forming properties as the pinder but it is as nutritious as the potato or turnip, less exhausting, and will grow any where and with little work. As an adjunct in economical hog raising, we think it might be profitably introduced. But we are spinning out a very long yarn, and the sun is out—another cold N. W. wind clear off—the type of the seasons to come—"stick a pin there." Ever yours,

BROOMSEDGE.

Big Branch, March 3, 1856.

REMARKS.—We assure our friend we have none; there is not a man in the State whose word would go further with us, or whose honor and integrity stands

fairer in our estimation. We know that we have not thrown the "first stone" at either the Editor or Publisher of the *S. C. Agriculturist*, and we assure our friend that we shall not lay a straw in their track, unless in self-defence. Such course may become, in our opinion, necessary and proper. As we have stated before, there is room enough for both, and there is no doubt the State—our own State alone—is fully able, if disposed, to support both. Our cotemporaries have the advantage of us, to be sure, in getting the State Society aid; but we have become used to working for small wages, which renders our case more tolerable, and as we have put our hands to the plow, we shall not look back or run into the lands of others—Ed. F. & P.

For the Farmer and Planter.
Grape Culture.

MR. EDITOR:—On the last week having been engaged in trimming and mulching my grape vines busily till Saturday night, when I received from the office the *Farmer and Planter*, that good old matter of facts journal, the true characteristics of my old native State. In this number, (February) page 34, I find an article headed, "*Plant a Grape Vine*," commencing with these words: "Every person who has the control of a square rod of ground wherever plants may grow, can scarcely do better than to set a grape vine." My motto is this, *that a man never lives to be too old to till the soil, plant a grape vine, or be the father of a child.* (Good, friend Murray.—Ed.)

Here is my experience in grape culture: In the fall of '49, I sold Catoosa Springs, and moved into the woods. In the spring of '50 I sent to Carolina's South and North, early, and obtained grape cuttings, and planted out seven varieties. Some 10 or 15 of these grew, and are now in a bearing state. One of those vines produced me the past summer, 845 bunches of luscious grapes, weighing, by averaging bunches, 84 pounds. This vine was the growth of six summers, from a cutting.

I will refer the inquirer to said number of F. & P., as to the manner of planting a cutting. The soap-suds mentioned by the late Downing, is right. I mulch around the vine with pulverized charcoal, air slaked lime and wood ashes. To prevent the rot I get clear of the insects, which is one of the great enemies of the grape, and almost the sole cause of rot. Those insects collect in immense numbers on the vines, and when the berry is forming they probe it, which leaves it in an unhealthy state, when the additional influence of dew and hot sunshine produces the mildew and rot. Here is my practice and experience made last summer, when my

neighbors were all complaining of the mildew and rot. I did not go to a drug store to obtain sulphur. I took *air slaked lime*, finely pulverized *charcoal*, and ground *plaster*, equal parts all, sifted through a fine sieve in a perfectly dry state, and early in the morning, when the leaves were wet with dew, dusted the vines over freely. This caused them (the insects) to collect together like swarms of bees. The lime in contact with the dew, destroys the insect. The charcoal absorbs the moisture, and the fertilizing and healthy effects of the plaster needs no further comment.

The vine I allude to that yielded 84 pounds of merchantable grapes, was an *Isabella*. I will plant half an acre of the *Catawba* this season. I am cultivating none but native varieties. The *Herbemont* is the most delicious table grape of all, and makes the best sweet wine. It requires brandy and sugar to make sweet, *lady* wine. The *Catawba* was found in 1801. The *Herbemont* the same time and place. The *Herbemont* was taken to Columbia, S. C., by Col. Abram Blanding, during his supervision of the public works and State road. They are natives of Buncombe County, N. C., in latitude 35° 30'.

I leave it to you, Mr. Editor, to use this article in any way that you may think will promote the horticulturist's interest of our country.

Yours, truly, WILLIAM MURRAY.

Catoosa Springs, Ga., March 3, 1856.

P. S. The weather this winter exceeds in long continued coldness anything I have been permitted to see in 77, through which I have passed. This morning a sleet and snow. *Seventy-seven* winters, and yet capable of being "the father of a child."

W. M.

Good news, old gentleman.—Ed.

From the Southern Cultivator.
Rain Water Cistern.

EDITORS SOUTHERN CULTIVATOR:—As I am writing, permit me to give you a plan by which the purest and most healthy water that ever slaked the thirst of man may be had in any climate on the globe where rain descends, with but little expense. I wish to put an end to that eternal inquiry, with those who contemplate leaving their native home, and their "Father's Spring," to look out a location in the "Far west," viz. "Is the water good?" and the reply not unfrequently is, "No sir; very bad."

If you want good water, construct a cistern in the following way:

Dig it round; any depth and width you wish it (I have just put on the first coat of cement on one 12 by 20 feet) and plaster it with mortar made as follows:—Procure good white sand; put for the first coat 3 parts of sand and 1 of hy-

draulic lime; for the second coat 2 parts of sand and one of lime, and the third coat 1 part of sand and 1 of lime. After you have plastered it side and bottom, turn an arch of good brick over the top, and "grout" it well on top and plaster underneath; then insert a good pump, and you have good water anywhere, all the while by conveying rain water from the gutters into the cistern.

The above receipt for making mortar I obtained a short time since, from Dr. M. W. Phillips. Who knows something of everything pertaining to plantation economy.

Yours, &c.,

G. D. HARMON.

Utica, Miss., 1856.

On the Field-Culture of Peas and on a Deposit of Peat in Maryland.

"The importance of the Pea crop, both as an improver of the land and a resource for pork, is but just in its commencement of realization amongst our Farmers. There has been no single article which has done so much for agriculture, both in present profit and future improvement of the soil."

We extract the above from Mr. Venable's Address to give it prominence, and to urge upon our Maryland friends and others, to make experiments with this valuable plant, the field pea especially as a secondary crop. Will they not make trial of it when they seed their oats—sowing broadcast at the same time, and making the pea a substitute for clover? To the farmer who for any reason is unwilling to sow his corn ground in wheat, the pea sown with oats and only taking possession of the ground after the oats are harvested would afford a fallow for wheat quite equal perhaps to clover, and one year earlier, and fallow too which may be immediately followed with clover, as a clover fallow shall not be. We have the past season tested its value with great success as food for hogs. We copy below from the 2nd Vol. of "The Plough, the Loom, and the Anvil," a portion of a letter addressed by the writer of this to the then editor of that Journal.—ED. AMERICAN FARMER.

JOHN S. SKINNER, Esq.—*Dear Sir:*—You asked me, when I saw you last, whether I read "The Plough, the Loom, and the Anvil." I wish to give you some evidence that I have profited by it. You have called attention repeatedly to the use of the pea as cultivated in some of the Southern States, and published several valuable papers on the subject. A gentleman in the southern part of Virginia, several years ago, sent three or four parcels of favourite kinds to Dr. M——, who kindly gave me a portion of them. One of the kinds, a black pea, seemed to have the preference, from the fact that it was less liable to rot from exposure, and that being cultivated in the corn-field and fed or gathered, what remained might be relied on to seed the field. That land being put in oats in the spring that crop would come to perfection, and then the pea would take possession of the ground, affording covering for the land, or food for stock as might be desired.

"I have made one very satisfactory trial of this pea sown broadcast, and ploughed in with the seed of a crop of oats. The pea did not at all interfere with the oats but took a start after the crop was harvested, and made a fine growth. If on further trial, it shall be found that it may be grown in this way without interfering with the crops of grain, how readily it may be introduced into our established rotations as a substitute for clover on all light soils, whether rich or poor the clover being on such soils, as I know by experience, a very uncertain crop as a substitute for clover upon lands which after corn, are sown in oats, because not considered good enough for wheat, and which are as unproductive of clover as of wheat. In the rotation which prevails in some sections where wheat is sown upon oat stubble, the pea might intervene with great advantage to the land and the crop of wheat. And upon wheat sown on clover fallow, how readily with a drill may the pea be sown in the spring! And instead of the great growth of "rag-weed," exhausting the land and harboring all sorts of insects how much better to have a crop which will fatten all the bees and hogs, and enrich the land! I do not mention the most common mode of using it in the Southern States, that of sowing broadcast when the corn is laid by, because I think in this latitude we should not in that way get the full benefit of the crop. The great advantage of these suggestions is, that they may be adopted without interfering with any established practices, and that, with farmers, you know, is half the battle."

RESPIRATION.—An animal eats; the carbon of his food enters the blood, and with it passes through the lungs. He breathes; the oxygen of the air enters the lungs, combines with the carbon of the food, and forms carbonic acid gas by a process similar to combustion. This combustion creates animal heat, which warms the blood, and courses with it through the whole body, to keep all the parts warm. In a very cold stall, the carbon of the food is all consumed for fuel; in one that is comfortable, a part of it is left to promote animal growth. In the latter case, the growth pays for the food, in the former, there is no pay.—*Prof. Nash.*

Use of Salt in Cooking Vegetables.—A German professor says, that if one portion of vegetables be boiled in pure distilled or rain water, and another in water to which a little salt has been added, a decided difference is perceptible in the tenderness of the two. Vegetables boiled in pure water are vastly inferior in flavor. This inferiority may go so far in the case of onions, that they are almost entirely destitute of either taste or odor, though when cooked in salted water, in addition to the pleasant salt taste, is a peculiar sweetness and strong aroma. They also contain more soluble matter than when cooked in pure water. Water which contains 1.420th of its weight of salt is far better for cooking vegetables than pure water, because the salt hinders the solution and evaporation of the soluble and flavoring principles of the vegetables.



The Farmer and Planter.

PENDLETON, S. C.

Vol. VII., No. 5, : : : : May, 1856.

Our Paper.

It is a duty and pleasure to give our sincere thanks to many friends from whom we hear, both through the press and private correspondence, advocating our claims to the favorable consideration of the class to whose interest our labors have been devoted, and encouraging us to stand by our bantling. This, with the help and countenance of such friends, we shall endeavor to do, with no disposition at the same time to throw any obstructions in the way of others who may desire to occupy a part of the same field. It is a large one and calls for many laborers, and we that have stood the heat and burden of the day, shall not murmur at those who may choose to come in at the eleventh hour. We shall endeavor to perform our duty as faithful stewards to our lords, and doubt not others will do the same. Not having as much faith in our own abilities as Editors ought to have, probably, and as many do have, we hope not to stuff our readers to satiety with our *own* crude speculations, but rather to cater for them from other and more ample resources. Our good friends to whom we are already so much indebted for the fair character which our paper has sustained, will not desert us in our seventh trouble, having stuck to us already, many of them, through six, and we are happy to know that we are making monthly accessions to our corps scribendi; and we again invite all others of our readers to follow the good example set by those who, with ourselves, are laboring in their vineyard.

Col. Simkins' Address.

A number of copies of this address have been placed in our hands recently, by the worthy President of the State Society, Col. CALHOUN, for distribution in our District. Col. C. had previously in our absence, left a bundle in the village, but we were not aware of it when we alluded to seeming neglect of the Committee to supply us in a former number of our paper. We have also on hand a number of copies of Col. CALHOUN's Address to the Pendleton Farmers' Society, yet on hand for distribution. We have also yet on hand for gratuitous distribution, a number of AF-FLECKS' Almanac, for 1853, which contains a great deal of valuable matter that should be stored up by ev-

ery class that till the ground, or plant a tree. Likewise, one of his Plantation Record Books, which every farmer and planter should have. Price \$3.00.

Credit.

We see that our brother of the *American Farmer*, gently admonishes some of his brethren South, on their neglecting to give due credit. We presume we are the guilty one, and by confessing our faults, hope to have forgiveness. One of the errors occurred through neglect alone; the other did not, the article was taken from an exchange that had given no credit, and we suspecting it was not his property, credited "Ex." only.

Agricultural and Horticultural Societies and Clubs

Will confer a special favor in directing their Secretaries to send us for publication *all* reports read before their respective Societies, all addresses delivered, and all important proceedings. The proceedings, &c. of the State Society, or so much as we may consider of interest to our readers, will be re-published from the organ of the Society, and although we may not be permitted to publish any original matter, it will not lose much by age. Stale bread is not devoured so greedily, and is more easily digested than fresh baked. As heretofore we have a list of exchanges not surpassed by any other paper, a most inviting field from which to make selections. With all these elements of a good paper, and a determination on our part to embrace them, we may venture to say to our friends, "*who's* afraid."

Millet.

We are at a loss to know why more of our subscribers, and especially such as depend altogether on corn-blades for fodder, do not cultivate this valuable grass. Some members of our Pendleton Farmers' Society at the last anniversary meeting, objected to the term grass as applied to Millet, when we attempted reading a report on its culture and productiveness. But notwithstanding, it undoubtedly is of the grass family. Call it forage, fodder, or what you please, however, if not hay, we can assert according to our own experience with it, that it is a most valuable substitute for either. We are in the practice of drilling corn thickly to be cut at a proper time, and cured for fodder, which we consider a preferable course to pulling blades and injuring our corn. But we prefer cultivating the Millet instead, for two reasons. The first is, that after the ground is properly prepared, Millet may be sown broadcast, and the culture is over; whereas we usually plow or "sweep" out our drilled corn once or twice. And secondly, when Millet seed are sown thick enough to occupy the *whole* ground, say one peck to the acre, (some sow more) the stalks run up from 4 to 6 feet high, very slender, and are hence much more easily cured than corn stalks, which latter require much care and attention to have them of much value. We do not say, however, if the corn is thickly drilled, so as to have small stalks, and them well cured, that the corn fodder is inferior to Millet; but we do doubt

its being any better. In curing Millet, after a day's sun, it is raked into cocks and treated as we treat Clover or other hay, and with but very little if any more labor. Not so with corn if taken care of. In the first place, stakes must be prepared and driven into the ground, one for each shock of corn; around these stakes the corn must be stacked or "stoked," as our Northern brethren would say, and secured by one or two suitable bands; and after having become sufficiently cured on the outside, the shocks must be taken down and turned inside out, and again secured to the stakes. This latter operation is not performed by every one, we know, but nevertheless *should be*, in order to facilitate and expedite the curing process so as to prevent too long exposure to the weather, by which the fodder is rendered comparatively worthless. But with the Millet, even before the time of turning our corn shocks, we are done, it is in our barn, dry, green and as sweet as newly made hay of any kind.

We had intended to state to our readers an experiment which we made last year in the culture of Millet, the report of which to our Society is above alluded to, and it should have been done before now to enable such as are disposed to make a trial of it to procure seed; but it has been overlooked. It is not, however, yet too late, for *our* principal crop, the yield of which we are about to report, was sown on the 6th day of July. The seed may be had, we presume, in Charleston; if not, of SINCLAIR & Co., Baltimore; or C. B. ROGERS, & Co., Philadelphia, from whom we recently ordered.

Our ground, a basin in an upland field, which was once a pond, but has been drained and in cultivation several years without any manure, was closely and deeply plowed both ways with a narrow bull-tongue, and then harrowed, after which the seed were sown broadcast, about one peck of *clean* seed to the acre. The seed were put in with a light running cultivator, and that followed by a heavy roller. The crop grew off finely and was cut with a short, strong grass blade, (date not now recollected) when many of the heads had dropped their bloom, and some partly filled. The yield was ascertained by cutting what we considered an average square rod, and weighing, and according to the weight of this rod, we obtained from one acre 36,000 pounds of green fodder. We regret we did not keep the weighed portion to itself that we might have known what the loss was in drying. We presume, however, that two-thirds would be a liberal deduction for loss in drying, and if so, then we had 12,000 pounds of dry hay per acre, two or three times as much as is usually obtained of any other kind of hay.

If Millet is cut up before feeding, there will be but little more loss than from other hay, especially if it has been thickly sown, and the stalks small. The amount rejected by both horses and cattle, will be in proportion to the size of stalk, and so it is with corn &c.

For raising seed we should prefer drilling thinly in drills 2 or 2½ feet apart, when one gallon of seed would probably be enough for an acre of ground. And we would here remark, seed being the principal

object, the fodder is not by any means worthless; indeed we believe that some who cultivate Millet, are in the habit of letting the whole crop stand until the seed are sufficiently matured; but in this case we must think the fodder is materially lessened in value, though well worth taking care of.

As we understand from the Farmers' and Planters' Encyclopedia, there are three distinct genera of Millet. (*Digitaria*), cultivated in Poland, the common Millet, (*Panicum*), or Prairie Grass, cultivated in Germany, and sometimes in England; and the great or Indian Millet, (*Holcus*), cultivated in India, Italy and America.

Of the common Millet there are three species: *Sataria Germanica*, a native of the South of Europe; the *P. Miliacum*, a native of the East Indies; and the *Sitaria Italica*, also of Indian origin.

That cultivated by us approaches nearer than any other the description given of the "German Millet, *S. Germanica*," which we are informed "rises with a pointed reed-like stalk, about 3 feet high," (ours grows much taller and larger unless very thickly sown,) "about the size of a common reed, with a leaf at each joint," (ours has a sheath springing from each joint, and embracing the stalk nearly up to the next joint, and puts out the leaf.) "one and a half foot long, and about an inch broad at the base where broadest, ending in an acute point, rough to the touch, embracing the stalk at the base, and turning down about half the length. The stalks are terminated by compact spikes about the thickness of a man's finger at the bottom, growing taper towards the top, 8 or 9 inches long, and closely set with small, roundish grain. It is annual, and perishes soon after the seeds are ripe. There are three varieties of it: The yellow, white and purple grained."

Since writing the above article, we have received the *Genesee Farmer*, in which we find some very favorable accounts of the successful culture of Millet, which we transfer to our columns.

To Correspondents.

D. J. MEADOW WOODS.—Your last favor, friend J., has been received, and for which accept our thanks; but really we think you have overdone the thing in sending interest on your account for two years, a favor we have never had offered before, or expected from any subscriber. Why, sir, we have many subscribers on our book who have never yet paid us the first "red cent," and yet some of them are honorable and honest men, we know. It is only from a habit of neglect of small matters that the thing has been suffered to pass from year to year. If we were in the habit of charging interest, we should not, in good conscience, have thought of charging you after receiving the late and very acceptable present from you. If you will only send us the name of a new subscriber, with the balance to make out his dollar, it will be much more acceptable than for interest on your account.

A friend, in sending a new, and not his first list of subscribers, with over payment for the same, writes us in a P. S., as follows.

MR. EDITOR:—I see that you are complaining at

the little interest planters generally take in our agricultural papers, but I had no idea that it was so much the case until I commenced trying to get up a club. Men will make so many excuses. Why if I was to tell you all I have heard, you would be amused. But when a man tells me he has not the money just now, I say to him, pay me when convenient, and I will advance it for you. This is the way I have got the few names (some 10 or 12—Ed.) I have been able to send you. Now, if any one man in every neighborhood would pursue this course, the *Farmer and Planter* would soon be the paper we all hope to see it.

Very true, friend, M. S.; much, *very much*, might be done in this way, and several of our friends and the supporters of our cause, besides yourself, *are* and have been for some time pursuing the same disinterested and commendable course. But too many others, although no doubt well-wishers to the cause and to our success, who subscribe themselves, and punctually pay up, are, we fear, too lukewarm in the business of warming up their unconverted neighbors to the subscribing point. We *know* from our own experience that much as we have stated above, may be done by advancing for neighbors. We have done it for many papers that we patronized previous to embarking in the business of paper-making ourself.

The articles on Book Farming, in our last and present numbers, are from the pen of a new contributor in our midst. L. is welcome to a place in our picture, which we trust he will continue to occupy.

THE "SOUTHERN AGRICULTURIST."—We understand that an Extra of this forthcoming work, the organ of the State Society, is out with a list of premiums offered for our first exhibition in November next. The Extra has not been sent to us in time to publish the list of premiums, or any part of it in our present number.

A subscriber writes us as below. We are happy to know that he and all others are getting at least the worth of their dollar, if not in two or three numbers, as with him, at least in *twelve*; and we assure our friends that nothing shall be wanting on our part to make the F. and P. for all future time of its existence, equally as acceptable and valuable to them as ever heretofore. We give only the initials of our correspondent, as his letter was not intended for publication. Shall be pleased to have him as a contributor to our columns.

MR. EDITOR:—I have just received the March number of the "*Farmer and Planter*." I need not remind you that I have not paid for it. Excuse me for delaying to do so this long. I am much pleased with the "*Farmer and Planter*." I enclose you one dollar, the subscription price. I have already the worth of my dollar several times told. So, you perceive, I have the advantage of you, if I should be so unfortunate as never to see the F. & P. again. You must continue to send it on, however, if I have to send you two or three dollars more at the end of the year.

Very respectfully, yours, W. C. C.

THE CRANBERRY CURE FOR Erysipelas.—The New Haven *Palladium* records another case of

the complete cure of Erysipelas by the simple application of raw cranberries, pounded fine. The patient was a young lady; one side of her face was so swollen and inflamed, that the eye had become closed and the pain excessive. A poultice of cranberries was applied, and, after several changes, the pain ceased, the inflammation subsided, and, in the course of a couple of days, every vestige of the disease had disappeared.

For the *Farmer and Planter*. "Management of Hogs."

MR. EDITOR.—In the February number of the *Farmer and Planter* I see an article over the signature of S. H. He says, Have you ever seen whole litters of pigs with sore tails and sore ears, as if they had been frost bitten, and eventually the tails rot off? And did you ever see it except when sows had been fed on pumpkins?

I would say, for the satisfaction of S. H., as well as others who might suppose the use of pumpkins the cause of the above malady, that pumpkins may, but do not always produce said result. I had a test of that last fall. I had three sows which were fattened almost entirely on pumpkins, all of which had fine, healthy pigs. Some years since I had a sow with eight pigs, all of which lost their tails while young, and I, like S. H., began to look about in order to find out the cause, and, like S. H., thought I had found it. My sow had been made very fat on peas, which I thought to be the cause of the pigs losing their tails. But I am now of opinion that S. H. and myself were both right; yet I am of opinion that other articles of food might produce the same result under certain circumstances, owing to some extent to other influences. We will here state that the constant use of one kind of food while sows are carrying their young, will produce the result spoken of; at least, that is our conclusion, having had considerable experience in hog raising for the last few years.

In the case above, where my pigs lost their tails, we know that pumpkins did not do it, for the very good reason that the sow never saw a pumpkin. Breeding sows should have, while carrying their young, a variety of food; at least, their diet should be changed.

MEDICUS.

Omega, Upsher Co., Texas, March 4, 1886.

For the *Farmer and Planter*. Cotton Culture.

MR. EDITOR:—There are many who look upon any movement that will increase the crop of cotton as a great evil; why they do, it is their own business. For us, you and I, it is our duty to let our light shine; if we have anything that will increase the product of whatever we cultivate, it is our bonaden duty to give it to the public. We Editors, "how we apples swim." Well, never mind that. This thing is certain, the consumption of breadstuffs and meat has become so imperative on the produ-

cer, that prices are ruinous to the consumer. If by any means we can grow 3 and 4 millions of bales on our best lands, and force thin land planters to growing grain and making meat, certainly we do something. And that something has to be done. Cotton will not rule at a fair price; 8 to 12 cents, say average of 10, whilst provisions will go high. But it does not necessarily follow that our crops of cotton will be swelled up by an improved culture, because the crop is made principally by those who must have the cotton; therefore, if we can induce them to grow what they can gather upon a ten acre per hand crop, they will certainly grow more food. The one idea principle is taking root, growing cotton alone or mostly, and buying everything else; but the root will not strike deep, a few suns will wither the plant. Look to all countries where this one idea prevails, and we see any thing but cheering inducements.

We grow cotton for its fruit, not for wood or water. If we desire to force a tree to early bearing or to a full crop, we dwarf; then why give cotton so much space, and cultivate so deep? Deep and thorough tilth, with rotation and superficial culture is granted best for land, and ordinarily for all vegetation; but as we ordinarily desire large growth, then it is all right, but in cotton it is different.

If cotton grows on stiff land, for instance on the hard prairie lands, or the stiff, sweet, green lands in the far West, the plant does not make much wood, but turns out 2, 3 and 4 thousand pounds per acre—favored seasons and localities. No man will dispute this. The question then comes home to us, can we imitate this or arrive at same results? An Englishman, the most practical horticulturist I ever saw, had an orchard of runty looking trees, sold largely of his fruit; his neighbor, a fence only dividing, had no fruit for sale, and from same varieties, had indifferent fruit. Why? Mr. L., the first one, manured his trees, cut a trench around trees so as to cut off roots, trimmed branches freely. Mr. G., the other, plowed and spaded. The trees of the first *were not half as large*; each had the richest lands, in our latitude for trees. Here is the idea: plow close to cotton and cut roots, plant it closer and give less distance between stalks. Can this be risked? We will see one case. In 1843, a young man from Ga., was employed by one P. as overseer; the crop was planted and scraped as usual, a part became stunted from lice, but generally doing well. P. had occasion to leave home in June for 2 weeks, his young overseer having crop in

fine condition, had to go round to brag a little. In visiting a neighbor, where a shrewd overseer, D., was employed; he saw furrows thrown to middle of row, and asked if that was the way our folks made cotton. "Yes, indeed, all good planters do it." Enough, the young man did not notice grass almost knee high, but was green enough to return and "bar off" the entire crop. P. returned a few days after, and just concluded he was a ruined man, stopped all team, and turned about with turn plows to earth to the plant. The consequence, where cotton usually grew 5 to 8 feet, it did not get to 3, and was the fullest of fruit I ever saw on such land. The stalks absolutely lay on the ground, not able to sustain load. This is true, my friend Major, and the crop was a full one. Besides, do we not find it safe to plow even to picking time? It prevents an influx of sap, and keeps cotton growing slowly, and the fruit not cast off. Yours, with respect,

A FRIEND.

Spring is Here.

We have not had much to do in the way of poetry, but the following lines, handed us by a friend, for the F. & P., are appropriate to the season, and hence we insert with pleasure. These lines, with some slight alterations now, we are informed by the author, have been published before.—Ed.

Spring is here, the birds are singing
Anthems for the rosy May;
Gales from the balmy bowers are bringing
Odors for its natal day.

Heaven is smiling—earth is wreathing
Flowers of hope and joy and truth;
Nature in sweet tones is breathing
Love within the heart of youth.

Care has left the stricken bosom,
Gladness chases doubting gloom;
Winter hopes begin to blossom,
Life receives its vernal bloom.

Maidens' eyes with hope are beaming,
Roses on their cheeks repose;
Gaily pass their hours in dreaming
Of a life all free from woes.

But amid thy glee and gladness,
Mark the moments as they fly;
In thy joy and in thy sadness,
Gather flowers that never die.

L.

A MEAT PUDDING—Six or eight mealy potatoes boiled and finely mashed. Add a quart of milk and two eggs, lay some slices of meat partially cooked and nicely seasoned, in a dish, pour on some of the batter, then some more slices and the rest of the batter. Bake.

Millet for Soiling and for Fodder.

A pretty thorough examination of the recorded experience of practical farmers during the last twenty years, has led us to the conclusion that in this climate no plant has given such general satisfaction for soiling purposes or for fodder as millet. In Germany it is cultivated principally for the seed, which is frequently used instead of rice. In this country it is generally raised for fodder, or for fodder and seed together. Large crops have been grown. In 1841, Mr. G. Jones received a premium from the Tompkins County Agricultural Society, for having raised, on two acres, five and a half tones of millet fodder and sixty-three bushels of seed. Twenty quarts of seed were sown per acre on the 8th of June on new land. T. B. Shepard, of Buffalo, N. Y., says, in the last volume of the *Genesee Farmer*, page 181:

"In 1851 I sowed four acres of millet (four quarts per acre) the 16th of June, and had as much fodder as from any eight acres of grass that year—and it was a good year for hay. I have raised from four to eight acres every year since, and have invariably had good crops of not only fodder or hay or straw equal to as many tons of the best timothy hay, but from twenty to thirty bushels of seed to the acre, equal to as many bushels of corn to feed to any kind of domestic animals. I feed the most of my seed, after having it ground, to milch cows, preferring it to Indian meal, as making more milk and of as rich quality. The last season I had six acres of millet, which has been worth more than \$50 per acre, or \$300 for the six acres. I have fed 35 cows on the straw since the 25th of January and have enough left to last until the 1st of May, and got 120 bushels of seed from the lot. The ripest of the seed, some sixty bushels, I have sold for seed, and the balance I am now feeding to my horses, and find they do as well on the meal put on cut hay and straw, as they did when I fed an equal quantity of corn and oat meal."

The great German agricultural writer, Albert D. Thaer, says:

"Millet requires a warm, rich, sandy, well pulverized soil. It succeeds better when sown after some crop which has been abundantly manured, than it does when sown immediately after an amelioration of undecomposed manure.

"A soil must be tilled to a great depth for its reception, and plowed three times, besides being harrowed rolled, and thoroughly freed from weeds. Many farmers dig their ground to a great depth previous to sowing it with this plant; but a good plowing answers the purpose equally well. Millet is in general very successful on newly drained land, provided that it is in good condition, and also land which has been left in repose for several years; in the latter case a single plowing is sufficient, if the soil is subsequently harrowed, and well broken up with a roller, before the seed is put into it. When this class of soils are too dry for linseed, there is no more profitable means of employing them than by sowing them with millet.

"Millet should be sown in May; a harrow is then passed lightly over the soil, and, where the ground is dry, a roller must also be used. The seed must be thoroughly ripe, perfect, and free from disease.

"As soon as weeds make their appearance among millet which is just shooting above ground, they must be eradicated by weeding. This is absolutely necessary. * * * The best way is to tear up the weeds with hand rakes constructed for the purpose. This mode of proceeding answers far better than handweeding, as by its means not only all the weeds may be eradicated, but the supernumerary plants may be thinned off. The effect of this cultivation on the success and vegetation of the crop is wonderful; after it, the millet shoots up so rapidly that the weeds seldom have time to grow again, or, if they do, it is in very small numbers, and they may easily be pulled up."

Mr. A. Y. Moore, of Schoolcraft, Mich., in a letter published in the *Country Gentleman* for April 5th, 1855, says:

"Millet has been a favorite crop with me for the last five or six years. There is no kind of hay that my stock of all kinds prefer to millet; and if the land is rich, and it is well put in, and good seed, it produces well. I have had as much as four tons to the acre. After it is taken off in the fall, the land is in good order for wheat, by being once well plowed; not yielding quite so heavy a crop as a summer fallow, but quite good."

Mr. L. M. Bartlett of Lasalle, Mich., says:

"For hay (cut when seed is half ripened) it is superior to any crop I have ever tried. On rich lands it may be made to yield from four to six tons per acre. It is excellent for horses, when well cured; they are particularly fond of it. Cattle prefer it to best Timothy or clover. * * I have been feeding my entire stock on this kind of hay for the last fortnight, and all seem satisfied, even the calves."

Mr. Moore's method of cultivation is as follows:

"I will now give you my process. I plow early in the spring, at the time that I plow for oats or corn—harrow once—then after oats are sowed, corn planted and other work done up say from the 1st to the 10th of June, plow the ground again, harrow well, and sow about twelve quarts seed per acre; harrow well, again, and it should be rolled, in order to make a smooth surface for mowing. It comes up slow and fine, but grows very rapidly in hot weather, say July and August. It is fit to cut in September, when the seed is out of the milk, or pretty solid. It does not hurt by standing, even till frost comes, except that it loses seed. Some folks cradle and bind it in sheaves, but I prefer to mow it, and put it in cock green; let it cure in cock; it may want airing, but put it in cock again to undergo the curing process. If it should rain and wet the hay, open the cocks till dry, and put it up again. It is a very rich, nutritious feed, in consequence of the abundance of seed, which all kinds of stock are fond of."

There is some difference of opinion as to the proper quantity of seed per acre. Jesse Buel thought four quarts per acre sufficient, while others recommend as much as twenty-eight

quarts per acre. If raised for seed, and sown in drills two feet apart, as Judge BUEL recommended, probably a peck to the acre would be all the seed required; while if sown broad-cast for soiling purposes, as much as three pecks might be sown with advantage. The richer the soil, the more seed should there be sown. If sown thin, on rich land, the stems are coarse and hard, and not so good for fodder.

Millet is doubtless an exhausting crop on a wheat farm. It draws heavily on the soil for those elements most needed by wheat, barley, oats, corn, &c. We would not advise its cultivation on land intended for wheat. When raised for fodder, or for soiling, a rich alluvial soil abounding in organic matter, and which will not grow wheat, is just the kind of land for it. Large crops can be grown on such land in dry, hot summers, when all other forage crops are light. So that the land is rich enough, the weather can not be too hot or the soil too dry for millet.

From the American Farmer.

The Rescue Grass--How to raise Seed.

Dear Sir—Having been requested by many of the Farmers and Planters of Virginia and Maryland to give my mode of raising my most excellent winter grass, and to have it published in your extensively circulated paper, so that all of your subscribers who design to cultivate it may know how to proceed, I avail of this opportunity to do so, as follows: Select a dry, loamy and rich piece of ground, break it up deep, pulverize it well, and lay off rows 18 or 20 inches apart. Drill in the seeds, rather thin, and cover them lightly. This should be done as early in September as possible. A peck of seed will sow a $\frac{1}{4}$ of an acre. Give the grass a working or two the first month and keep all poultry off until it is six or eight inches high. It should not be cut or grazed the first winter, although neither hurts it. When the seeds are ripe, they shed out easily; strip the heads by hand. Plenty of seed will fall out for a stand. The seed being gathered, turn under the grass and plant peas, (the Oregon, Shinnery or Black,) either in drills or broadcast, and cover lightly with the rake or harrow. In the fall save the peas, or let the hogs intended for pork have them. Let the vines and leaves lie to rot on the surface, being a good coat of manure to stimulate the growth of the young grass, which will spring up over the ground early in Sept., and in November the grass will be beautiful and ready for use. As a small piece of ground is managed, so can a field of any size, with this difference, in large fields use rows three or four feet apart, following the plan recommended by me in the March No. of the American Farmer.

One word to the Farmers and Planters of Virginia and Maryland. This Grass, Pea and Stock, will do more for you than all the guano in the world if you had it free of cost. This Grass, the Pea and good stock, will put money in *your pockets*, instead of the pockets of the Peruvians and other foreigners. They will furnish all the manure which your fields require.

They will enrich them, and keep them rich for ages, and pay you largely in other ways besides. They will not make your fields sterile, as the constant application of Guano will certainly do. They will enable you to leave your estates in good condition for those who will certainly need them when you and I are dead and gone, and they cost almost just nothing.

Your obedient servant, B. V. IVERSON.



Ladies' Department.

A low Voice in Woman.

Yes, we agree with the old poet who said that a low, soft voice was an "excellent thing in woman." Indeed, we feel inclined to go much further than he has on the subject, and call it her crowning charm. No matter what other attraction she may have; she may be as fair as the Trojan Helen, and as learned as the famous Hypatia of ancient times; she may have all the accomplishments considered requisite at the present day, and yet if she lacks a low, sweet voice, she can never be really fascinating. How often the spell of beauty is rudely broken by hoarse loud talking. How often you are irresistibly drawn to a plain, unassuming woman, whose soft, silver tones render her positively attractive. Besides, we fancy we can judge of the character by the voice; the bland, smooth, fawning tones seems to us to betoken deceit and hypocrisy, as invariably as the musical, supple voice indicates genuine refinement. In the social circle how pleasant it is to hear the sex talk in that low key, which always characterizes the true lady. In the sanctuary of home, how such a voice soothes the fretful child, and cheers the weary husband. How sweetly its cadence floats around the sick chamber, and around the dying bed, with what solemn melody do they breathe a prayer for the departing soul. Ah, yes, a low, soft voice is an "excellent thing in woman."—*Buffalo Republic*.

CREOLE BUTTER.—The neighbors of a certain lady in the fourth District in New Orleans, have recently discovered the nature of something that has seemed a miracle, for months past. They knew the lady had but one cow, (says the *Crescent*.) and they knew also that the lady's two little negroes peddled as much Creole butter as could be produced by half a dozen common cows. Inquisition got so high on the subject at last, that the lady has let out the secret, and in its travels it has reached us. She told a friend that her cow was only a common cow, and did not produce any butter, but yielded milk enough

in which to re-churn any quantity of strong Goshen butter, which she buys by wholesale at the groceries, and converts by the said re-churning in new milk, to that pale, sweet delicacy known as Creole butter, which always commands the highest prices. She added, also, that by this process she had made a clear profit, since June last, of *twelve hundred dollars!* One cow is not much, but one cow and yankee ingenuity together, are considerable. Our authority in this matter is indisputable, and the speculation is worth imitating.

SPOTTED DICK.—Put three-quarters of a pound of flour into a basin, half a pound of beef-suet, half ditto of currants, two ounces of sugar, a little cinnamon, mix with two eggs and two gills of milk; boil in either mould or cloth for one hour and a half; serve with melted butter, and a little sugar over.

For the Farmer and Planter.

Making Ink for Zinc Labels for Fruit Trees.

MR. EDITOR:—I have used a great many labels for fruit trees, and give you the two best. I use Sheet Zinc and Copper Wire, punch holes in the former, and insert Wire, twist, so as to fasten Wire, and cut off for large limbs. The Zinc is better of being cleansed and made smooth if rough, by *rust*. Take—

Powdered Verdegris.....1 part,
Sal. Ammoniac,1 "
Lampblack, $\frac{1}{2}$ "
Water,10 "

Mix well, and write with a pen.

[*Cultivator*, 1st Vol., New Series. page 332.

I have labels on trees now legible, 10 years old.

I used pumice stone to brighten the Zinc, and wrote at the same time with a black lead pencil. When I last noticed, this was plain. Upon several labels I used both, that I might test the difference. Thus far, either is good.

I have seen zinc cut, say $1\frac{1}{2}$ inches wide at one end, and six long; the other end to a point, with a hole about $\frac{1}{4}$ of an inch, about 2 inches from the wide end. The broad end received name, the small end doubled around limb, and the end inserted into a hole and turned over.

Yours, &c., W. M. P.

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LIST OF PAYMENTS RECEIVED.

NAMES.	POST OFFICES.	AMOUNT
Mason Reams, Sumterville,	S. C.	\$2.90
Dr E Ravenel, Charleston,	"	1.
Olney Harleston, " [vol. 7,]	"	1.
S C Bishop, " [vol. 7,]	"	1.
Col J F Kern, Huntington, (vol. 6)	"	1.
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Capt J R Spearman, Shop Springs, (see March No.)	"	1.
Robt. Batey Unionville, [vols. 5 & 6]	"	2.

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[4—tf]

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November, 1855.

[11—6m]

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January, 1856,

[1—1y]

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